



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/730,897	12/06/00	HUTH	G HUTH

020151
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SUITE 3220
NEW YORK NY 10118

MM91/1102

EXAMINER

PEREZ, G

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 11/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/730,897

Applicant(s)

HUTH, GERHARD

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the permanent magnet inside or outside circumference the rotor and slot skew must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi (JP 62-185545) in view of Broadway et al. (U. S. Pat. 3,673,477).

Koichi substantially teaches the claimed invention except that it does not show that the stator including a winding which has cyclically repeating winding factors $|\xi_p| = 0.945$, $|\xi_{5p}| = 0.140$, and $|\xi_{7p}| = 0.060$, and a skew angle $\gamma = 2\pi/18p$, wherein p is the number of pole pairs. Koichi does not disclose that the winding is a 4-pole winding. Koichi does not disclose that the winding includes prefabricated coils.

Broadway et al. disclose that the winding is a 4-pole winding (see figure 1b). The invention of Broadway et al has the purpose of reducing the proportionate value of residual parasitic harmonics.

It would have been obvious at the time the invention was made to modify the motor of Koichi and provide it with the winding configuration disclosed by Broadway et al. for the purpose of reducing the proportionate value of residual parasitic harmonics.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the claimed winding factors and skew angle since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the claimed winding factors and skew angle since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious at the time the invention was made to modify the stator of Koichi and provide it with prefabricated coils since the examiner takes Official Notice of the use of prefabricated coils in the dynamoelectric art and the selection of these known embodiments to reduce the size and facilitate manufacture of the motor would be within the level of ordinary skill in the art.

2. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koichi in view of Broadway et al. as applied to claim 1 above, and further in view of Van Hout et al. (U. S. Pat. 5,030,864).

Koichi and Broadway et al. disclose a motor as described on item 1 above.

However, neither Koichi nor Broadway et al. disclose that the stator includes a

laminated core with a slot skew of at least half a slot pitch. Neither Koichi nor Broadway et al. disclose that the rotor includes permanent magnets which are arranged interiorly of the rotor.

Van Hout et al. disclose that the stator (3) includes a laminated core with a slot skew of at least half a slot pitch (figure 2). Van Hout et al. disclose that the rotor (1) includes permanent magnets (11) which are arranged interiorly of the rotor (1). The invention of Van Hout et al. has the purpose of eliminating the fundamental frequency of the detent torque.

It would have been obvious at the time the invention was made to modify the motor of Koichi and provide it with the stator and rotor configuration disclosed by Van Hout et al. for the purpose of eliminating the fundamental frequency of the detent torque.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 3432 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956.

Guillermo Perez
October 26, 2001


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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